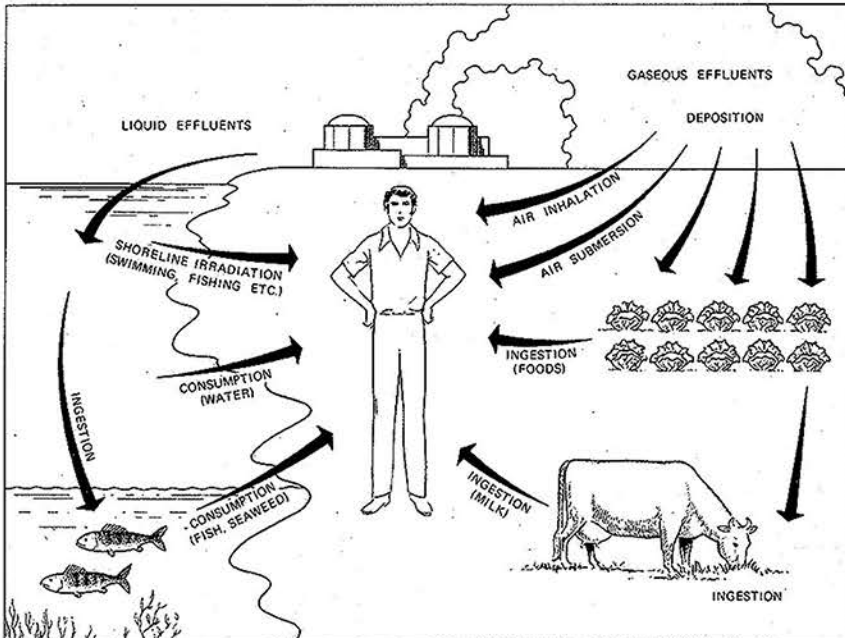


☢ NUCLEAR POWER IS NOT CLEAN, GREEN, OR EMISSIONS-FREE ☢

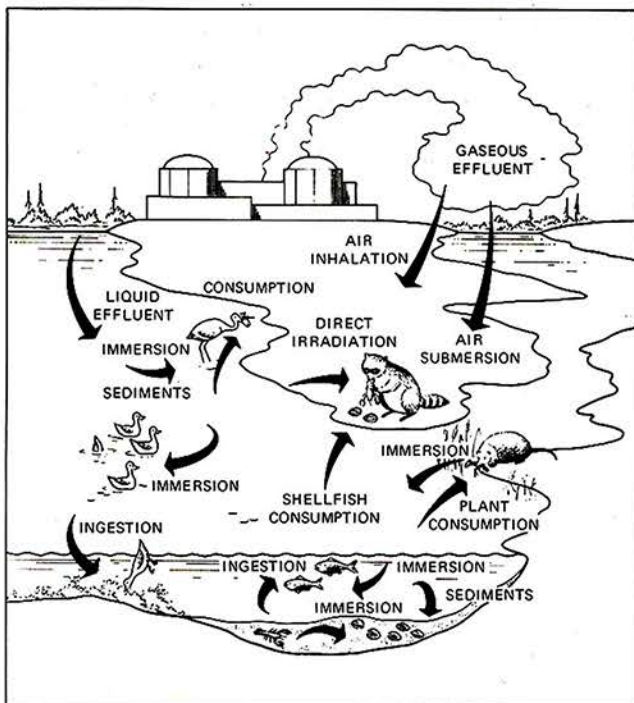
Contrary to what some nuclear advocates proclaim, Canadian nuclear power plants (large, medium, small, and micro) are NOT “clean” or “emissions-free”. During normal routine operations CANDU reactors emit radioactive pollutants into the air and water - their **emissions** can cause cancer and other serious health conditions. The illustrations and list below are from **Nuclear Power In Canada- Questions & Answers** published by the **Canadian Nuclear Association (CNA)** pages 13,15. see: https://inis.iaea.org/collection/NCLCollectionStore/_Public/14/733/14733908.pdf

GENERALIZED EXPOSURE PATHWAYS FOR MAN



GENERALIZED EXPOSURE PATHWAYS FOR ORGANISMS OTHER THAN MAN

illustrations credit: CNA



RADIOACTIVE EFFLUENTS FROM REACTORS FOLLOW GENERALIZED EXPOSURE PATHWAYS TO PEOPLE, ANIMALS, AND PLANTS

Below: list of radioactive effluents is from the CNA book cited above

GASEOUS EFFLUENTS:

Fission products

- iodine-131
- krypton-85
- xenon-133
- xenon-135

Activation products

- carbon-14
- tritium oxide
- argon-41

LIQUID EFFLUENTS:

Fission products

- cesium-137
- cesium-134

Activation products

- cobalt-60
- tritium

Nuclear Power in Canada published by the **Pembina Institute**

identifies additional effluents from nuclear power generation, including: ammonia, hydrazine (a recognized carcinogen), various heavy metals, gross beta-gamma activity in water (ie. fission or activation products in suspended or dissolved solids), radioactive particulate in air (ie. fission or activation products attached to dust particles), and significant thermal pollution in adjoining water bodies. see: https://www.pembina.org/reports/Nuclear_web.pdf

The Canadian Nuclear Safety Commission (CNSC) monitors limits of radioactive pollution from the domestic nuclear industry. However, its official allowable limits do not mean safe limits. That's because the CNSC is more lax than regulatory bodies in some other countries. The International Atomic Energy Agency (IAEA) has criticized the CNSC for this. For example, the E.U. allows 100 Bq/L of tritium in drinking water, the U.S. allows 740 Bq/L, but the CNSC allows up to 7,000 Bq/L

Media watchdog finds CANDU reactor ads “inaccurate” and “unsupported”

Have you ever looked at advertisements for nuclear power and wondered how organizations such as the Power Workers' Union can call nuclear reactors “emissions free?” We see similar phrases all the time in print media, on the web, and in statements by elected officials. The problem is, it just isn't accurate to say that nuclear power is “emissions free.” Nuclear reactors emit all kinds of foul things into the environment, and industry and government know it.

Advertising Standards Canada has just posted a decision to its website declaring that it is inaccurate and unsupportable to call CANDU reactors “emission free.”

Lake Ontario Waterkeeper staff and a group of law students from Queen's University filed a complaint about this with Advertising Standards Canada. The national not-for-profit body self-regulates the advertising industry in Canada. If an ad is misleading, deceptive, or makes claims that are unsupportable, Advertising Standards Canada can request that the advertiser remove the ad.

We complained about a specific Power Workers' Union ad that ran in *The Globe and Mail*. The ad labels CANDU reactor “emission free.”

We provided supporting documentation that shows CANDU reactors at nuclear plants such as the Darlington Nuclear Generating Station emit many different contaminants: 2-propenoic acid, ammonia, aromatic hydrocarbon resin, benzene, carbon dioxide, carbon monoxide, hydrazine, morpholine, nitrogen oxides, phosphoric acid, quaternary ammonium compounds, sulphur dioxide, suspended particulate matter, total hydrocarbons, as well as tritium.

Advertising Standards Canada has posted a decision to its website declaring that it is inaccurate and unsupportable to call CANDU reactors “emission free.” In its commentary, Advertising Standards Canada states emphatically: “...it is misleading... for an advertiser to categorically promise one thing when, by its own admission, it can only deliver something that is significantly less”...

That means truth in advertising is more important today than ever before. Advertising Standards Canada's decision is good for public policy, good for the advertising industry, and good for the environment.

Published on June 9, 2010 by Lake Ontario Waterkeeper
For complete article and links go to waterkeeper.ca/blog/18037